

REMARKS

The Office Action dated January 8, 2008, and the patents relied on therein have been carefully reviewed, and in view of the above changes and following remarks reconsideration and allowance of all the claims pending in the application are respectfully requested.

Claims 1-40 stand rejected. By this Amendment, claims 8, 22, 30 and 34 have been amended. Claims 1-40 remain pending.

Applicant's attorney wishes to thank the Examiner for the time taken on April 1, 2008, to telephonically discuss whether the nature of the present Office Action is non-final or final, as the second sheet of the Office Action and the U.S. Patent and Trademark Office PAIR system indicate that the Office Action is final, although the text of the Office Action indicates the non-finality nature of the Office Action. Based on Applicant's attorney understanding from the teleconference with the Examiner, the context of the present Amendment is that the present Office Action is non-final.

Amendments To The Claims

Applicant has amended claims 8, 22 and 34 to include the concept of coalescing data in a partially full RAID stripe with data from another RAID stripe to make unused space available. Support for this amendment can be found throughout the specification, for example, at least in paragraph [29] of the originally filed patent application.

Additionally, Applicant has amended claim 30 to generally improve its form in accordance with U.S. patent law by correcting an inadvertent typographical error.

**The Rejection Under 35 U.S.C. § 103(a) Over Velez-McCaskey
In View of Rudoff And Further In View Of Nishida**

Claims 1-3, 5, 6, 8-10 and 12-14 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Velez-McCaskey et al. (Velez-McCaskey), U.S. Patent No. 6,098,128, in view of Rudoff, U.S. Patent No. 6,636,878 B1, and further in view of Nishida et al. (Nishida), U.S. Patent No. 5,677,900.

Applicant respectfully traverses this rejection. Applicant respectfully submits that the subject matter according to any of claims 1-3, 5, 6, 8-10 and 12-14 is patentable over Velez-McCaskey in view of Rudoff and further in view of Nishida. Applicant respectfully submits that

the proffered system and the device resulting from the combination of Velez-McCaskey, Rudoff and Nishida impermissibly changes the principle of operation of Nishida. Alternatively, Applicant respectfully submits that the proffered system and the device resulting from the combination of Velez-McCaskey, Rudoff and Nishida impermissibly changes the principle of operation of Velez-McCaskey. Moreover, Applicant respectfully submits that the proffered line of reasoning for combining Velez-McCaskey, Rudoff and Nishida is unconvincing.

“To support the conclusion that the claimed invention is directed to obvious subject matter, either the references must expressly or impliedly suggest the claimed invention or the examiner must present a convincing line of reasoning as to why the artisan would have found the claimed invention to have been obvious in light of the teachings of the references.” *Ex parte Clapp*, 227 USPQ 972, 973 (Bd. Pat. App. & Inter. 1985). (See, also, MPEP §§ 706.02(j) and 2144.)

In the present instance, the Examiner does not state that any of Velez-McCaskey, Rudoff or Nishida expressly or impliedly suggests the claimed subject matter. Consequently, in order to support the present rejection, the Examiner’s line of reasoning must be convincing as to why the artisan would have found the claimed invention to have been obvious in light of the teachings of the references.

At page 4, lines 10-13, of the Office Action dated January 8, 2008, the Examiner states that “it would have been obvious to one of ordinary skill in the art at the time the invention was made for the shared data blocks to include parity information in order to provide error detection and correction when the data files are rebuild as taught by Nishida (Col. 1, lines 29-33).” Based on this statement, Applicant respectfully understands that the Examiner is essentially asserting that it would have been obvious to include the concept of data blocks having parity information, as taught by Nishida, with the combination of Velez-McCaskey and Rudoff.

In this regard, Applicant respectfully submits that Nishida relates to a sequential access-type data recording/reproducing system and method, such as the spiral track of an optical disc or a magnetic tape. (See Nishida, column 1, lines 9-13.) Nishida discloses that each data file recorded on the sequential access-type medium includes a plurality of data blocks, having as their components clusters of data to which parity has been added for detection/correction of errors. (See Nishida, column 1, lines 29-32; column 7, lines 11-13; column 8, lines 21-23; column 9, lines 30-32; and column 10, lines 37-39; and Figures 4, 6, 8, 10 and 12.) Notably,

each example of a recorded data file provided by Nishida is a data file that sequentially recorded on the storage medium. That is, Nishida discloses a data file comprising a plurality of data blocks to which parity has been added and that the data file is sequentially recorded on the storage medium.

Velez-McCaskey discloses that “one surface 66 of each of the drives is dedicated to parity.” (See Velez-McCaskey, column 9, lines 27-28, and Figure 9, 10a and 10b.) Additionally, Velez-McCaskey discloses that “parity information may be sent to any other parity drive surface.” (See Velez-McCaskey, column 9, lines 31-32.) In this regard, Velez-McCaskey discloses that “RAID-3 is implemented within each drive of the array, and the generated parity is transmitted to the appointed parity drive for RAID-4 implementation, or striped across all of the drives for RAID-5 implementation.” (See Velez-McCaskey, column 9, lines 32-36.) That is, Velez-McCaskey discloses that a data file and the corresponding parity information for the file are not sequentially recorded on the same storage medium. The parity information is stored on a “parity drive surface,” and is, therefore, not sequentially recorded with the data file for RAID-3 and RAID-4 implementations. For a RAID-5 implementation, the parity information is striped across all drives of the RAID-5 implementation.

Applicant respectfully submits that combining Nishida with Velez-McCaskey would change the principle of operation of Nishida because a Nishida data file would not be sequentially recorded on the storage medium so that the parity information for the data file was sequentially recorded with the data. Alternatively, if the Nishida sequential recording of a data file with the parity information for the file is adhered to, then the principle of operation of Velez-McCaskey would be changed. That is, there would not be one surface 66 of each of the drives being dedicated to parity. Applicant respectfully submits that if the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious. *In re Ratti*, 270 F.2d 810, 123 USPQ 349 (CCPA 1959) Applicant respectfully submits that to change the principle of operation of either Nishida or Velez-McCaskey in order to form the subject matter of claim 1 is contrary to *In re Ratti*, 270 F.2d.810, 123 USPQ 349 (CCPA 1959). (See, also, MPEP § 2143.01.)

Further, Applicant respectfully submits that the Examiner’s proffered reasoning for combining Nishida with the combination of Velez-McCaskey and Rudoff is the mere assertion

that “it would have been obvious to one of ordinary skill in the art at the time the invention was made for the shared data blocks to include parity information in order to provide error detection and correction when the data files are rebuild as taught by Nishida (Col. 1, lines 29-33).” (See Office Action dated January 8, 2008, page 4, lines 10-13.) Applicant respectfully submits that the proffered reasoning is nothing more than a conclusory statement without any support. “Rejections on obviousness grounds cannot be sustained by mere conclusory statements; instead there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness,” (*In re Kahn*, 441 F. 3d 977, 988 (Fed.Cir. 2006) cited with approval in KSR). As such, Applicant respectfully submits that the Examiner’s line of reasoning for combining Nishida with the combination of Velez-McCaskey and Rudoff is not convincing because there is no rational underpinning to support the proffered line of reasoning.

Accordingly, Applicants respectfully submit that it is only by impermissible hindsight that the Examiner is able to reject claims 1-3, 5, 6, 8-10 and 12-14 based on the combination of Velez-McCaskey, Rudoff and Nishida. The Examiner does not state that any of Velez-McCaskey, Rudoff or Nishida expressly or impliedly suggests the claimed subject matter. Moreover, the Examiner has not presented a convincing line of reasoning as to why the artisan would have found the claimed invention to have been obvious in light of the teachings of Velez-McCaskey, Rudoff and Nishida because the Examiner improperly modifies the principle of operation of Nishida to arrive at the claimed subject matter or, in the alternative, the Examiner improperly modifies the principle of operation of Velez-McCaskey to arrive at the claimed subject matter. Moreover, Applicants respectfully submit that the proffered motivation for combining Velez-McCaskey, Rudoff and Nishida is a conclusory statement without any rational underpinning to support the line of reasoning. Thus, it is only by using Applicants’ disclosure as a template that the Examiner is able to select particular features of Velez-McCaskey, Rudoff and Nishida through a hindsight reconstruction of Applicants’ claims to make the rejection.

Applicant respectfully submits that claim 8 is allowable for the additional reason that none of Velez-McCaskey, Rudoff and Nishida disclose or suggest that the claimed filing system coalesces data in a partially full RAID stripe with data from another RAID stripe to make unused space available.

Consequently, Applicant respectfully requests that the Examiner withdraw this rejection and allow claims 1-3, 5, 6, 8-10 and 12-14

**The Rejection Under 35 U.S.C. § 103(a) Over Velez-McCaskey
In View Of Rudoff In View Of Nishida And Further In View Of Bright**

Claims 4 and 11 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Velez-McCaskey in view of Rudoff and in view of Nishida as applied to claim 1, and further in view of Bright et al. (Bright), U.S. Patent No. 7,058,819 B2.

Applicant respectfully traverses this rejection. Applicant respectfully submits that the subject matter according to either of claims 4 and 11 is patentable over Velez-McCaskey in view of Rudoff and in view of Nishida, and further in view of Bright. Applicant respectfully submits that Bright does not cure the deficiencies of Velez-McCaskey in view of Rudoff in view of Nishida with respect to claim 1, the base claim of both claims 4 and 11. More specifically, Applicant respectfully submits that Bright does not cure the Examiner's impermissible change of operation of Nishida or, in the alternative, the impermissible change of operation of Velez-McCaskey, and Bright does not cure the Examiner's unconvincing line of reasoning for combining Velez-McCaskey, Rudoff and Nishida.

Consequently, Applicant respectfully requests that the Examiner withdraw this rejection and allow claims 4 and 11.

**The Rejection Under 35 U.S.C. § 103(a) Over Velez-McCaskey
In View Of Rudoff In View Of Nishida And In View of Gotoh**

Claim 7 stands rejected under 35 U.S.C. § 103(a) as unpatentable over Velez-McCaskey in view of Rudoff and in view of Nishida as applied to claim 1, and further in view of Gotoh, U.S. Patent No. 6,223,300 B1.

Applicant respectfully traverses this rejection. Applicant respectfully submits that the subject matter according to claim 7 is patentable over Velez-McCaskey in view of Rudoff and in view of Nishida, and further in view of Bright. Applicant respectfully submits that Gotoh does not cure the deficiencies of Velez-McCaskey in view of Rudoff and in view of Nishida with respect to amended claim 1, the base claim of claim 7. In particular, Applicant respectfully submits that Gotoh does not cure the Examiner's impermissible change of operation of Nishida or, in the alternative, the impermissible change of operation of Velez-McCaskey, and Gotoh does not cure the Examiner's unconvincing line of reasoning for combining Velez-McCaskey, Rudoff and Nishida.

Consequently, Applicant respectfully requests that the Examiner withdraw this rejection and allow claim 7.

**The Rejection Under 35 U.S.C. § 103(a) Over Velez-McCaskey
In View Of Rudoff In View Of Nishida And Further In View of Frey, Jr.**

Claims 15-20, 22, 24-26, 28-36 and 38-40 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Velez-McCaskey in view of Rudoff and in view of Nishida as applied to claim 1, and further in view of Frey, Jr., U.S. Patent No. 6,742,137 B1.

Applicant respectfully traverses this rejection. Applicant respectfully submits that the subject matter according to any of claims 15-20, 22, 24-26, 28-36 and 38-40 is patentable over Velez-McCaskey in view of Rudoff, further in view of Nishida and further in view of Frey, Jr. Applicant respectfully submits that the proffered system and the device resulting from the combination of Velez-McCaskey, Rudoff, Nishida and Frey, Jr. impermissibly changes the principle of operation of Nishida. Alternatively, Applicant respectfully submits that the proffered system and the device resulting from the combination of Velez-McCaskey, Rudoff, Nishida and Nishida impermissibly changes the principle of operation of Velez-McCaskey. Moreover, the proffered line of reasoning for combining Velez-McCaskey, Rudoff, Nishida and Frey, Jr. is unconvincing.

“To support the conclusion that the claimed invention is directed to obvious subject matter, either the references must expressly or impliedly suggest the claimed invention or the examiner must present a convincing line of reasoning as to why the artisan would have found the claimed invention to have been obvious in light of the teachings of the references.” *Ex parte Clapp*, 227 USPQ 972, 973 (Bd. Pat. App. & Inter. 1985). (See, also, MPEP §§ 706.02(j) and 2144.)

In the present instance, the Examiner does not state that any of Velez-McCaskey, Rudoff, Nishida or Frey, Jr. expressly or impliedly suggests the claimed subject matter. Consequently, in order to support the present rejection, the Examiner’s line of reasoning must be convincing as to why the artisan would have found the claimed invention to have been obvious in light of the teachings of the references.

At page 9, lines 4-7, of the Office Action dated January 8, 2008, the Examiner states that “it would have been obvious to one of ordinary skill in the art at the time the invention was made

for the shared data blocks to include parity information in order to provide error detection and correction when the data files are rebuilt as taught by Nishida (Col. 1, lines 29-33).” Based on this statement, Applicant respectfully understands that the Examiner is essentially asserting that it would have been obvious to include the concept of data blocks having parity information, as taught by Nishida, with the combination of Velez-McCaskey, Rudoff and Frey, Jr.

In this regard, Applicant respectfully submits that Nishida relates to a sequential access-type data recording/reproducing system and method, such as the spiral track of an optical disc or a magnetic tape. (See Nishida, column 1, lines 9-13.) Nishida discloses that each data file recorded on the sequential access-type medium includes a plurality of data blocks, having as their components clusters of data to which parity has been added for detection/correction of errors. (See Nishida, column 1, lines 29-32; column 7, lines 11-13; column 8, lines 21-23; column 9, lines 30-32; and column 10, lines 37-39; and Figures 4, 6, 8, 10 and 12.) Notably, each example of a recorded data file provided by Nishida is a data file that sequentially recorded on the storage medium. That is, Nishida discloses a data file comprising a plurality of data blocks to which parity has been added and that the data file is sequentially recorded on the storage medium.

Velez-McCaskey discloses that “one surface 66 of each of the drives is dedicated to parity.” (See Velez-McCaskey, column 9, lines 27-28, and Figure 9, 10a and 10b.) Additionally, Velez-McCaskey discloses that “parity information may be sent to any other parity drive surface.” (See Velez-McCaskey, column 9, lines 31-32.) In this regard, Velez-McCaskey discloses that “RAID-3 is implemented within each drive of the array, and the generated parity is transmitted to the appointed parity drive for RAID-4 implementation, or striped across all of the drives for RAID-5 implementation.” (See Velez-McCaskey, column 9, lines 32-36.) That is, Velez-McCaskey discloses that a data file and the corresponding parity information for the file are not sequentially recorded on the same storage medium. The parity information is stored on a “parity drive surface,” and is, therefore, not sequentially recorded with the data file for RAID-3 and RAID-4 implementations. For a RAID-5 implementation, the parity information is striped across all drives of the RAID-5 implementation.

Applicant respectfully submits that combining Nishida with Velez-McCaskey would change the principle of operation of Nishida because a Nishida data file would not be sequentially recorded on the storage medium so that the parity information for the data file was

sequentially recorded with the data. Alternatively, if the Nishida sequential recording of a data file with the parity information for the file is adhered to, then the principle of operation of Velez-McCaskey would be changed. That is, there would not be one surface 66 of each of the drives being dedicated to parity. Applicant respectfully submits that if the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious. *In re Ratti*, 270 F.2d 810, 123 USPQ 349 (CCPA 1959) Applicant respectfully submits that to change the principle of operation of either Nishida or Velez-McCaskey in order to form the subject matter of claim 1 is contrary to *In re Ratti*, 270 F.2d.810, 123 USPQ 349 (CCPA 1959). (See, also, MPEP § 2143.01.)

Further, Applicant respectfully submits that the Examiner's proffered reasoning for combining Nishida with the combination of Velez-McCaskey and Rudoff is the mere assertion that "it would have been obvious to one of ordinary skill in the art at the time the invention was made for the shared data blocks to include parity information in order to provide error detection and correction when the data files are rebuilt as taught by Nishida (Col. 1, lines 29-33)." (See Office Action dated January 8, 2008, page 9, lines 4-7.) Applicant respectfully submits that the proffered reasoning is nothing more than a conclusory statement without any support. "Rejections on obviousness grounds cannot be sustained by mere conclusory statements; instead there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness," (*In re Kahn*, 441 F. 3d 977, 988 (CA Fed. 2006) cited with approval in KSR). As such, Applicant respectfully submits that the Examiner's line of reasoning for combining Nishida with the combination of Velez-McCaskey and Rudoff is not convincing because there is no rational underpinning to support the proffered line of reasoning.

Accordingly, Applicants respectfully submit that it is only by impermissible hindsight that the Examiner is able to reject claims 15-20, 22, 24-26, 28-36 and 38-40 based on the combination of Velez-McCaskey, Rudoff, Nishida and Frey, Jr. The Examiner does not state that any of Velez-McCaskey, Rudoff, Nishida or Frey, Jr. expressly or impliedly suggests the claimed subject matter. Moreover, the Examiner has not presented a convincing line of reasoning as to why the artisan would have found the claimed invention to have been obvious in light of the teachings of Velez-McCaskey, Rudoff, Nishida and Frey, Jr. because the Examiner improperly modifies the principle of operation of Nishida to arrive at the claimed subject matter

or, in the alternative, the Examiner improperly modifies the principle of operation of Velez-McCaskey to arrive at the claimed subject matter. Moreover, Applicants respectfully submit that the proffered motivation for combining Velez-McCaskey, Rudoff, Nishida and Frey, Jr. is a conclusory statement without any rational underpinning to support the line of reasoning. Thus, it is only by using Applicants' disclosure as a template that the Examiner is able to select particular features of Velez-McCaskey, Rudoff, Nishida and Frey, Jr. through a hindsight reconstruction of Applicants' claims to make the rejection.

Applicant respectfully submits that claims 22 and 34 are allowable for the additional reason that none of Velez-McCaskey, Rudoff and Nishida disclose or suggest a method comprising coalescing data in a partially full RAID stripe with data from another RAID stripe to make unused space available.

Consequently, Applicant respectfully requests that the Examiner withdraw this rejection and allow claims 15-20, 22, 24-26, 28-36 and 38-40.

The Rejection Under 35 U.S.C. § 103(a) Over Velez-McCaskey In View Of Rudoff In View Of Nishida And Further In View of Frey, Jr. And Further In View Of Gotoh

Claims 21 and 23 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Velez-McCaskey in view of Rudoff in view of Nishida and further in view of Frey, Jr. as applied to claim 15, and further in view of Gotoh.

Applicant respectfully traverses this rejection. Applicant respectfully submits that the subject matter according to either of claims 21 and 23 is patentable over Velez-McCaskey in view of Rudoff and in view of Nishida, further in view of Frey, Jr. and further in view of Gotoh. Applicant respectfully submits that Gotoh does not cure the deficiencies of Velez-McCaskey in view of Rudoff in view of Nishida and further in view of Frey, Jr. with respect to claim 15, the base claim of claims 21 and 23. In particular, Applicant respectfully submits that Gotoh does not cure the Examiner's impermissible change of operation of Nishida or, in the alternative, the impermissible change of operation of Velez-McCaskey, and Gotoh does not cure the Examiner's unconvincing line of reasoning for combining Velez-McCaskey, Rudoff, Nishida and Frey, Jr.

Consequently, Applicant respectfully requests that the Examiner withdraw this rejection and allow claims 21 and 23.

**The Rejection Under 35 U.S.C. § 103(a) Over Velez-McCaskey In View Of Rudoff
In View of Nishida And Further In View of Frey, Jr. And Further In View Of Bright**

Claims 27 and 37 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Velez-McCaskey in view of Rudoff in view of Nishida, and further in view of Frey, Jr. as applied to claims 15 and 31, and further in view of Bright.

Applicant respectfully traverses this rejection. Applicant respectfully submits that the subject matter according to either of claims 27 and 37 is patentable over Velez-McCaskey in view of Rudoff and in view of Nishida, further in view of Frey, Jr. and further in view of Bright. Applicant respectfully submits that Bright does not cure the deficiencies of Velez-McCaskey in view of Rudoff in view of Nishida with respect to claims 15 and 31, the respective base claim of both claims 27 and 37. More specifically, Applicant respectfully submits that Bright does not cure the Examiner's impermissible change of operation of Nishida or, in the alternative, the impermissible change of operation of Velez-McCaskey, and Bright does not cure the Examiner's unconvincing line of reasoning for combining Velez-McCaskey, Rudoff, Nishida and Frey, Jr.

Consequently, Applicant respectfully requests that the Examiner withdraw this rejection and allow claims 27 and 37.

Applicant notes that additional patentable distinctions between Velez-McCaskey, Rudoff, Nishida, Bright, Gotoh and Frey, Jr. and the rejected claims exist; however, the foregoing is believed sufficient to address the Examiner's rejections. Additionally, failure of Applicant to respond to a position taken by the Examiner is not an indication of acceptance or acquiescence of the Examiner's position. Instead, it is believed that the Examiner's positions are rendered moot by the foregoing and, therefore, it is believed not necessary to respond to every position taken by the Examiner with which Applicant does not agree.

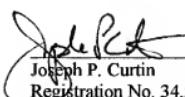
CONCLUSION

In view of the above amendments and argument, it is urged that the present application is now in condition for allowance. Should the Examiner find that a telephonic or personal interview would expedite passage to issue of the present application, the Examiner is encouraged to contact the undersigned attorney at the telephone number indicated below.

It is requested that this application be passed to issue with claims 1-40.

Respectfully submitted,

Date: April 2, 2008



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